

No.

200600303



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

*Resource Seeds, Inc.*

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE FOREGOING PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

TRITICALE

'98'

*In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this seventh day of September, in the year two thousand and seven.*

Attest:

Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

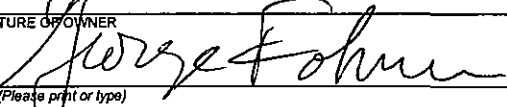
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE  
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2425).

|   |  |  |  |  |  |
|---|--|--|--|--|--|
| 1. NAME OF OWNER<br><b>Resource Seeds, Inc.</b>   |  | 2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME<br><b>00TV60147</b>  |  | 3. VARIETY NAME<br><b>98</b>   |  |
| 4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)<br><b>2280 Hecker Pass Highway<br/>Gilroy, California 95020</b>  |  | 5. TELEPHONE (include area code)<br><b>408/847-1051</b>  |  | <b>FOR OFFICIAL USE ONLY</b><br>PVPO NUMBER<br><b>200600305</b><br>FILING DATE<br><b>SEPTEMBER 25, 2006</b>  |  |
|   |  | 6. FAX (include area code)<br><b>408/847-0604</b>  |  |  |  |
| 7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.)<br><b>Corporation</b>  |  | 8. IF INCORPORATED, GIVE STATE OF INCORPORATION<br><b>California</b>   |  | 9. DATE OF INCORPORATION<br><b>October 1, 1990</b>   |  |
| 10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers)<br><b>Dr. George Fohner<br/>Resource Seeds, Inc.<br/>P.O. Box 1319<br/>Gilroy, CA 95021</b>   |  |  |  | F E E S<br>R E C E I V E D<br>FILING AND EXAMINATION FEES:<br>\$ <b>4,382.00</b><br>DATE <b>9/25/06</b><br>CERTIFICATION FEE:<br>\$ <b>768.00</b><br>DATE <b>7/31/2007</b>   |  |
| 11. TELEPHONE (include area code)<br><b>408/847-1051</b>  |  | 12. FAX (include area code)<br><b>408/847-0604</b>   |  | 13. E-MAIL<br><b>george@resourceseeds.com</b>  |  |
| 14. CROP KIND (Common Name)<br><b>Triticale</b>   |  | 16. FAMILY NAME (Botanical)<br><b>Gramineae</b>  |  | 18. DOES THE VARIETY CONTAIN ANY TRANSGENES? (OPTIONAL)<br><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO<br>IF SO, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR THE APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLANT FOR COMMERCIALIZATION.  |  |
| 15. GENUS AND SPECIES NAME OF CROP<br><b>Triticosecale</b>  |  | 17. IS THE VARIETY A FIRST GENERATION HYBRID?<br><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO |  |  |  |
| 19. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)<br>a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety<br>b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness<br>c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety<br>d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional)<br>e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership<br>f. <input checked="" type="checkbox"/> Exhibit F. Declaration Regarding Deposit<br>g. <input checked="" type="checkbox"/> Voucher Sample (3,000 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)<br>h. <input checked="" type="checkbox"/> Filing and Examination Fee (\$4,382), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office) |  |  |  | 20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act)<br><input type="checkbox"/> YES (If "yes", answer items 21 and 22 below) <input checked="" type="checkbox"/> NO (If "no", go to item 23)<br>21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES?<br><input type="checkbox"/> YES <input type="checkbox"/> NO<br>IF YES, WHICH CLASSES? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED<br>22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?<br><input type="checkbox"/> YES <input type="checkbox"/> NO<br>IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS.<br><input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED<br>(If additional explanation is necessary, please use the space indicated on the reverse.) |  |
| 23. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?<br><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO<br>IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)   |  |  |  | 24. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)?<br><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO<br>IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)   |  |
| 25. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.<br>The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.<br>Owner(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.   |  |  |  |  |  |
| SIGNATURE OF OWNER<br>   |  | SIGNATURE OF OWNER   |  |  |  |
| NAME (Please print or type)<br><b>George Fohner</b>   |  | NAME (Please print or type)  |  |  |  |
| CAPACITY OR TITLE<br><b>President</b>   |  | DATE<br><b>9/13/06</b>   |  | CAPACITY OR TITLE<br><b></b>   |  |
|   |  |  |  | DATE<br><b></b>  |  |

(See reverse for instructions and information collection burden statement)

**GENERAL INSTRUCTIONS:** To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E, F; (3) for a tuber reproduced variety, verification that a viable (*in the sense that it will reproduce an entire plant*) tissue culture will be deposited and maintained in an approved public repository; and (4) payment by credit card or check drawn on a U.S. bank for \$4,382 (\$518 filing fee and \$3,864 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice). **NEW:** With the application for a seed reproduced variety or by direct deposit soon after filing, the applicant must provide at least 3,000 viable untreated seeds of the variety *per se*, and for a hybrid variety at least 3,000 untreated seeds of each line necessary to reproduce the variety. Partial applications will be held in the PVPO for not more than 90 days; then returned to the applicant as un-filed. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a payment by credit card or check payable to "Treasurer of the United States" in the amount of \$768 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

**NOTES:** It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

Plant Variety Protection Office  
Telephone: (301) 504-5518 FAX: (301) 504-5291  
General E-mail: PVPOmail@usda.gov  
Homepage: <http://www.ams.usda.gov/science/pvpo/PVPindex.htm>

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#### SPECIFIC INSTRUCTIONS:

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and provide evidence that the permanent name of the application variety (even if it is a parental, inbred line) has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: U.S. Department of Agriculture, Agricultural Marketing Service, Livestock and Seed Programs, Seed Regulatory and Testing Branch, 801 Summit Crossing Place, Suite C, Gastonia, North Carolina 28054-2193 Telephone: (704) 810-8870. <http://www.ams.usda.gov/lsg/seed.htm>.

#### ITEM

- 19a. Give:
- (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
  - (2) the details of subsequent stages of selection and multiplication;
  - (3) evidence of uniformity and stability; and
  - (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
- (1) identify these varieties and state all differences objectively;
  - (2) attach replicated statistical data for characters expressed numerically and demonstrate that these are clear differences; and
  - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
20. If "Yes" is specified (*seed of this variety be sold by variety name only, as a class of certified seed*), the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
23. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
24. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.

**22. CONTINUED FROM FRONT** : (Please provide a statement as to the limitation and sequence of generations that may be certified.)

**23. CONTINUED FROM FRONT** (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

USA, November 2005. Prior to November 2005, only used for field tests and seed multiplication under the supervision and control of Resource Seeds, Inc.

**24. CONTINUED FROM FRONT** (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotope, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

**TRITICALE '98'**

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**Exhibit A. Origin and breeding history of the variety.**

Triticale "98" (00TV60147) results from the cross of a female parent designated SS193-5/TCL26-1 and male parent MZ4/XT419/3/PIKA"S"/YOGUI"S"/LT978.82/ASAD"S"//TARASCA87//PND6/CMH77A.1165. The cross was made in 1997. The male parent results from a rather complex series of crosses. The order in which the crosses were made is the key to understanding how the male parent was obtained. The first cross is PND6 with CMH77A.1165. A plant selection from this cross was made and crossed with the variety Tarasca 87 (cross#2). A plant derived from this cross was made to a plant selection from the cross of Pika"S"/Yogui"S"/LT978.82/Asad"S". This was the third cross in the series. And finally, the last cross (#4) was made between the third series cross plant selection and the MZ4/XT419 parent plant. Lastly, the resultant male parent plant from the above crosses was hybridized to the female plant selection from the cross SS193-5 by TCL 26-1.

SS193-5 is a triticale selection resulting from the cross A-206/YOGUI//DRIRA made in Hollister, Ca. in 1986. TCL26-1 is a CIMMYT triticale named Arancaria. On the male side of the cross, MZ4 is a winter triticale from Oregon State University; XT419 is a selection from the cross X28486/A876OT made in 1986. X28486 is a winter triticale and A876OT is a spring type. The remainder of the parentage comes from the International Maize and Wheat Improvement Center (CIMMYT).

The resultant F1 and subsequent generations were advanced using the pedigree method of selection practiced at both Woodland and Gonzales, California.

An F4 generation head row, from an F3 derived plant selection was bulk harvested and yield tested in the California Central Valley in 2000 (see Table A1 for a summary of selection criteria). This experimental line was selected for further testing and designated as variety number 00TV60147. The complete genealogy is SS193-5/TCL26-1//MZ4/XT419/3/PIKA"S"/YOGUI"S"/PND6/CMH77A.1165/CM.

The seed purification program for 00TV60147 was begun in 2001 whereupon 24 heads were taken from yield trial plots. From the 24 head rows, four were selected, based on yield trial performance data. These head rows were bulked to become the seed stock for what was designated as triticale "98". Pre-breeder seed was produced in 2003, followed by Breeder in 2004 and Foundation in 2005.

Triticale 98 has been phenotypically stable and uniform through four generations of seed multiplication. Taller variants have been noted at a frequency of not more than 0.5%.

**TRITICALE '98'**

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Exhibit A. Origin and breeding history of the variety. (continued)

Table A1. Selection Criteria

| Generation    | Criteria for Selection  |
|---------------|---|
| P1 x P2       | None  |
| F1            | None  |
| F2 through F5 | Select for resistance or tolerance to diseases:<br>Stripe rust<br>Septoria leaf blotch<br>Barley yellow dwarf virus<br>Leaf rust<br><br>Select for:<br>High tiller number<br>Leafiness<br>Good grain fill<br>Early maturity<br><br>Select against:<br>Lodging |
| F6 & F7       | Select for:<br>High forage yield<br>High seed yield<br>Reduced lodging<br>Little or no disease<br>Early maturity  |

Triticale 98  
Resource Seeds, Inc.

**TRITICALE '98'**

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**Exhibit B. Statement of Distinctness**

Triticale 98 is most similar to the triticale variety, "96", but differs from it in the following traits:

| <u>TRAIT</u>        | 98         | 96      |
|---------------------|------------|---------|
| Plant color at boot | Blue Green | Green   |
| Anthocyanin in stem | Absent     | Present |
| Head density        | Mid-dense  | Lax     |
| Auricle color       | White      | Purple  |

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY  
PLANT VARIETY PROTECTION OFFICE  
BELTSVILLE, MD 20705

EXHIBIT C

OBJECTIVE DESCRIPTION OF VARIETY  
TRITICALE (X *Triticosecale* Wittm.)

|   |  |   |
|---|--|---|
| NAME OF APPLICANT (S)<br>RESOURCE SEEDS, INC.   | TEMPORARY OR EXPERIMENTAL DESIGNATION<br>00TV60147 | VARIETY NAME<br>98                                |
| ADDRESS (Street and No. or RD No., City, State, Zip Code, and Country)<br>P.O. BOX 1319, GILROY, CA 95021 |  | FOR OFFICIAL USE ONLY<br>PVPO NUMBER<br>200600303 |

PLEASE READ ALL INSTRUCTIONS CAREFULLY: Place the appropriate number that describes the varietal character of this variety in the spaces below. Place a zero in the first space (e.g. 0 9 or 0 9 9) when number is either 99 or less or 9 or less respectively.

## 1. GROWTH HABIT

- 1 1 = Spring 2 = Intermediate 3 = Winter  
3 Juvenile Plant Growth: 1 = Prostrate 2 = Semi-Prostrate 3 = Erect  
1 Photoperiod: 1 = Insensitive 2 = Sensitive

## 2. PLOIDY

- 1 1 = Hexaploid 2 = Octoploid 3 = Other (Specify) \_\_\_\_\_  
42 2n Chromosome Number

## 3. MATURITY

- 1 1 = Very Early 2 = Early 3 = Mid-Season 4 = Late 5 = Very Late  
1 0 Days Earlier Than 105 \*  
 Same as Check \_\_\_\_\_ \*  
 \_\_\_\_\_ Days Later Than \_\_\_\_\_ \*

## 4. HEIGHT

- 3 1 = Dwarf 2 = Semi-Dwarf 3 = Short 4 = Mid-Tall 5 = Tall  
97 cm High  
16 cm. Shorter Than 105 \*  
 Same as Check \_\_\_\_\_ \*  
 \_\_\_\_\_ cm. Taller Than \_\_\_\_\_ \*

\* Relative to a Commercial Variety Grown in the Same Trial

## 5. PLANT COLOR AT BOOT STAGE

3 1 = Yellow-Green 2 = Green 3 = Blue-Green

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## 6. STEM

1 Anthocyanin: 1 = Absent 2 = Present4 Neck Hairiness: 1 = None 2 = Slight 3 = Moderate 4 = Heavy2 Shape of Neck: 1 = Straight 2 = Wavy 3 = Other (Specify) \_\_\_\_\_

## 7. LEAVES

2 Flag Leaf: 1 = Not Twisted 2 = Twisted22 cm Leaf Length (1<sup>st</sup> leaf below flag leaf)2 Waxy Bloom On Leaf At Boot: 1 = Absent 2 = Present15 mm Leaf Width (1<sup>st</sup> leaf below flag leaf)1 Leaf Carriage: 1 = Upright 2 = Recurved 3 = Drooping1 Auricle Color: 1 = Colorless or White 2 = Purple 3 = Other (specify) \_\_\_\_\_

## 8. HEAD

2 Density: 1 = Lax 2 = Mid-dense 3 = Dense1 Shape: 1 = Fusiform 2 = Oblong 3 = Clavate 4 = Elliptical 5 = Other (Specify) \_\_\_\_\_4 Awedness: 1 = Awnless 2 = Apically Awnletted 3 = Awnletted 4 = Awned2 Awn Color: 1 = White 2 = Yellow 3 = Tan 4 = Brown 5 = Black14 cm Head Length13 mm Head Width

## 9. GLUMES AT MATURITY

3 Pubescence: 1 = Glabrous 2 = Slightly Pubescent 3 = Pubescent3 Color: 1 = White 2 = Yellow 3 = Tan 4 = Brown 5 = Black3 Length: 1 = Short 2 = Mid-Long 3 = Long1 Width: 1 = Narrow 2 = Mid-Wide 3 = Wide4 Shoulder: 1 = Wanting 2 = Oblique 3 = Rounded 4 = Square 5 = Elevated 6 = Apiculate3 Beak: 1 = Obtuse 2 = Acute 3 = Acuminate

## 10. COLEOPTILE COLOR

   1 = White 2 = Green 3 = Purple

## 11. SEED

3 Shape: 1 = Ovate 2 = Oval 3 = Elliptical2 Smoothness: 1 = Smooth 2 = Slightly Wrinkled 3 = Wrinkled2 Brush Area: 1 = Small 2 = Mid-Size 3 = Large2 Brush Length: 1 = Short 2 = Mid-Long 3 = Long   Phenol Reaction: 1 = Ivory 2 = Fawn 3 = Light-Brown 4 = Brown 5 = Brown-Black2 Color: 1 = White 2 = Amber 3 = Red 4 = Purple 5 = Black 6 = Other (Specify) \_\_\_\_\_32 GMS Per 1,000 Seed up to 41 observed as function of growing conditions

## 12. DISEASE (0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Tolerant)

0 Stem Rust (Races) \_\_\_\_\_2 Leaf Rust (Races) \_\_\_\_\_2 Stripe Rust (Races) \_\_\_\_\_0 Ergot \_\_\_\_\_0 Powdery Mildew \_\_\_\_\_0 Bacterial Stripe \_\_\_\_\_3 Septoria \_\_\_\_\_3 Yellow Dwarf \_\_\_\_\_

\_\_\_\_ Other (Specify) \_\_\_\_\_

\_\_\_\_ Other (Specify) \_\_\_\_\_

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## 13. DISEASE (0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Tolerant)

0 Greenbug \_\_\_\_\_

Hessian Fly Race:

0 Cereal Leaf Beetle \_\_\_\_\_0 GP 0 A 0 B 0 C0 Other (Specify) \_\_\_\_\_0 D 0 E 0 F 0 G

## 14. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED

| Character          | Variety |
|--------------------|---------|
| Plant Tillering    | 105     |
| Winter Hardiness   |         |
| Area Of Adaptation | 96      |
| Seed Shape         | 96      |

## REFERENCES

L. W. Briggie and L. P. Reitz, 1963, Classification of Triticum Species and Wheat Varieties Grown in the United States, Technical Bulletin 1278, USDA.W. E. Walls, 1965, A Standardized Phenol Method for Testing Wheat Seeds for Varietal Purity, Contribution No. 28 to the handbook of seed testing prepared by the Association of Official Seed Analysts.

## COMMENTS

### Additional Narrative Description of Triticale 98

Triticale "98", currently marketed as one of the TRICAL® brand of forage triticale, is a spring-type, awned triticale that is fall-planted in the San Joaquin Valley of California. Its juvenile growth is erect, and at boot stage 98 is blue green, with leaves having a waxy bloom. Auricles are white or colorless. Flag leaf is twisted and leaf carriage is upright. Stems of 98 do not have anthocyanin, and its necks are wavy with heavy hairiness. Heads are middense and fusiform, with yellow awns. Glumes are tan and pubescent, with square shoulder and acuminate beak. Seed of 98 is typically slightly wrinkled, amber, elliptical, with a brush that is midsize and midlong.

Triticale 98 is adapted to the San Joaquin Valley of California and will be marketed there for production of silage harvested in the soft dough stage, for which grain yield is a key attribute.

| 2004 UC REGIONAL COMMON WHEAT AND TRITICALE TEST |           |                |          |                |          |                |          |                |
|--|-----------|----------------|----------|----------------|----------|----------------|----------|----------------|
| Name   | LOCATIONS |                |          |                |          |                |          |                |
|  | Delta     |                | Madera   |                | Kings    |                | Kern     |                |
|  | LBS/ACRE  | % of 105 Check | LBS/ACRE | % of 105 Check | LBS/ACRE | % of 105 Check | LBS/ACRE | % of 105 Check |
| YECORA ROJO                                      | 240       | 12%            | 2460     | 77%            | 3050     | 61%            | 2920     | 50%            |
| SUMMIT   | 4180      | 201%           | 4030     | 127%           | 6880     | 139%           | 6910     | 119%           |
| TRICAL® Brand 105                                | 2080      | 100%           | 3180     | 100%           | 4960     | 100%           | 5830     | 100%           |
| TRICAL 96  | 3250      | 156%           | 3020     | 95%            | 6900     | 139%           | 6210     | 107%           |
| TRICAL 111                                       | 4010      | 193%           | 3050     | 96%            | 5330     | 107%           | 4990     | 86%            |
| TRICAL 118                                       | 5790      | 278%           | 4430     | 139%           | 7660     | 154%           | 6250     | 107%           |
| TRICAL 116                                       | 4350      | 209%           | 3160     | 99%            | 6730     | 136%           | 6130     | 105%           |
| TRICAL 98  | 1730      | 83%            | 3890     | 122%           | 6110     | 123%           | 6880     | 118%           |
| CV   | 25.7      |                | 11.8     |                | 13.4     |                | 8.2      |                |
| LSD (.05)  | 930       |                | 590      |                | 970      |                | 660      |                |

### PRELIMINARY YIELDS (LB/ACRE), 2005 UC REGIONAL WHEAT AND TRITICALE TESTS

| NAME              | LOCATIONS    |                |          |                |          |                |          |                |
|-------------------|--------------|----------------|----------|----------------|----------|----------------|----------|----------------|
|                   | SAC/SJ DELTA |                | FRESNO   |                | KINGS    |                | KERN     |                |
|                   | LBS/ACRE     | % of 105 Check | LBS/ACRE | % of 105 Check | LBS/ACRE | % of 105 Check | LBS/ACRE | % of 105 Check |
| YECORA ROJO       | 2478         | 42%            | 4600     | 82%            | 3762     | 86%            | 3957     | 70%            |
| SUMMIT            | 6034         | 102%           | 5595     | 99%            | 5464     | 125%           | 6482     | 114%           |
| TRICAL® Brand 105 | 5915         | 100%           | 5627     | 100%           | 4382     | 100%           | 5681     | 100%           |
| TRICAL 96         | 7042         | 119%           | 5152     | 92%            | 7403     | 169%           | 7003     | 123%           |
| TRICAL 118        | 7887         | 133%           | 5739     | 102%           | 8166     | 186%           | 7683     | 135%           |
| TRICAL 116        | 7659         | 129%           | 5931     | 105%           | 6405     | 146%           | 7060     | 124%           |
| TRICAL 98         | 7431         | 126%           | 6413     | 114%           | 6247     | 143%           | 6253     | 110%           |
| CV                | 8.8          |                | 14.1     |                | 8.8      |                | 8.7      |                |
| LSD (.05)         | 610          |                | 1020     |                | 540      |                | 610      |                |

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).

**EXHIBIT E**  
**STATEMENT OF THE BASIS OF OWNERSHIP**

|  |   |  |
|--|---|--|
| 1. NAME OF APPLICANT(S)<br><br>Resource Seeds, Inc.  | 2. TEMPORARY DESIGNATION<br>OR EXPERIMENTAL NUMBER<br><br>98TV46506 | 3. VARIETY NAME<br><br>116                       |
| 4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country)<br><br>P.O. Box 1319<br>Gilroy, CA 95021 | 5. TELEPHONE (Include area code)<br><br>(408) 847-1051              | 6. FAX (Include area code)<br><br>(408) 847-0604 |
| 7. PVPO NUMBER   |   | 200500303  |

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain.



YES



NO

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? If no, give name of country.



YES



NO

10. Is the applicant the original owner?



YES



NO

If no, please answer one of the following:

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?



YES



NO

If no, give name of country

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?



YES



NO

If no, give name of country

11. Additional explanation on ownership (Trace ownership from original breeder to current owner. Use the reverse for extra space if needed):

**PLEASE NOTE:**

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 0.1 hour per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 5 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

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U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY  
PLANT VARIETY PROTECTION OFFICE  
BELTSVILLE, MD 20705

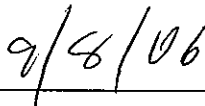
EXHIBIT F  
DECLARATION REGARDING DEPOSIT

|   |  |   |
|---|--|---|
| NAME OF OWNER (S)<br>Resource Seeds, Inc.         | ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country)<br>P.O. Box 1319<br>Gilroy, CA 95021 | TEMPORARY OR EXPERIMENTAL DESIGNATION<br>00TV60147                      |
| NAME OF OWNER REPRESENTATIVE (S)<br>George Fohner | ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country)<br>P.O. Box 1319<br>Gilroy, CA 95021 | VARIETY NAME<br>98<br>FOR OFFICIAL USE ONLY<br>PVPO NUMBER<br>200600303 |

I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.

replenishment subject to prior notice & availability for.

  
Signature

  
Date

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